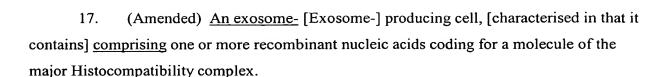


Claim Amendments, 4 May 2001

- 1. (Amended) A membrane [Membrane] vesicle [, characterised in that it] that comprises a recombinant molecule of the human major Histocompatibility complex.
- 2. (Amended) The vesicle [Vesicle] according to claim 1, [characterised in that the in which said recombinant molecule of the major Histocompatibility complex is a class II molecule.
- 3. (Amended) The vesicle [Vesicle] according to claim 2, [characterised in that the] in which said recombinant class II molecule of the major Histocompatibility complex is an α chain.
- 4. (Amended) The vesicle [Vesicle] according to claim 2, [characterised in that the] in which said recombinant class II molecule of the major Histocompatibility complex comprises an α chain and a β chain.
- 5. (Amended) The vesicle [Vesicle] according to [any of] claims 2 [to], 3 or 4, [characterised in that the] in which said recombinant class II molecule of the major Histocompatibility complex is chosen from among the serotypes DR1 [to], DR2, DR3, DR4, DR5, DR6, DR7, DR8, DR9, DR10, DR11, DR12 and DR13 [, preferably from DR1 to DR7].
- 6. (Amended) The vesicle [Vesicle] according to claim 1, [characterised in that the in which said recombinant molecule of the major Histocompatibility complex is a class I molecule.
- 7. (Amended) The vesicle [Vesicle] according to [any of claims 1 to 6, characterised in that it contains] claim 1, further comprising a complex between a defined peptide and [the] said recombinant molecule of the major Histocompatibility complex.
- 8. (Amended) The vesicle [Vesicle] according to [any of the preceding claims, characterised in that it also contains] claim 1, which further comprises one or more heterologous molecules of interest.

- 9. (Amended) The vesicle [Vesicle] according to [any of the preceding claims, characterised in that it also contains] claim 1, which further comprises a peptide or a recombinant protein enabling its purification.
- 10. (Amended) <u>The vesicle</u> [Vesicle] according to [the preceding claims, characterised in that it] <u>claim 1</u>, <u>which further comprises a tracer.</u>
- 11. (Amended) The vesicle [Vesicle] according to [any of the preceding claims, characterised in that it] claim 1, which is essentially free of molecules of the endogenous MHC.
- 12. (Amended) <u>A membrane</u> [Membrane] vesicle [characterised in that it] <u>that</u> is obtained from a mastocyte or mastocyte derived cell, [and in that it contains] <u>comprising</u> one or more heterologous molecules of interest.
- 13. (Amended) The vesicle [Vesicle] according to claim 12, [characterised in that the] in which said heterologous molecule of interest is a protein, a polypeptide, a peptide, a nucleic acid, a lipid, or a substance of chemical, biological or synthetic nature.
- 14. (Amended) The membrane [Membrane] vesicle according to claim [13] 12, [characterised in that the] in which said heterologous molecule is one or more molecules selected from the group consisting of a molecule of the major Histocompatibility complex, an antigen, a receptor ligand, a ligand receptor, a nucleic acid, a pharmacological product, a tracer [and/], or a purification peptide.
- 15. (Amended) The vesicle [Vesicle] according to claim 14, [characterised in that it expresses] in which said heterologous molecule is a ligand receptor, and [in that it contains] which further comprises another heterologous molecule of interest.
- 16. (Amended) <u>A membrane</u> [Membrane] vesicle [, characterised in that it contains] <u>that comprises</u> a recombinant fusion molecule between a polypeptide of interest and [an addressing signal] <u>a signal sequence</u>.



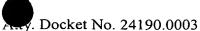
- 18. (Amended) The cell [Cell] according to claim 17, [characteried in that it] in which said cell is a mastocyte cell.
- 19. (Amended) The cell [Cell] according to claim 18, [characterised in that it is] in which said mastocyte cell is derived from a mastocyte line of a basophilic leukemia [, in particular of the RBL line, preferably RBL-2H3].
- 20. (Amended) The cell [Cell] according to [claims 17 to 19, characterised in that it comprises a] claim 17, in which said molecule is one or more of an MHC class I molecule, or an MHC class II α or β chain molecule [recombinant nucleic acid coding for an α chain and/or a β chain of a class II molecule of the major Histocompatibility complex and/or for a class I molecule of the major Histocompatibility complex].
- 21. (Amended) <u>A method</u> [Method] for producing an exosome containing a defined recombinant molecule, comprising [the following] steps of:
- [a) culture of <u>culturing</u> a mastocyte or mastocyte-derived cell containing a recombinant nucleic acid coding for said defined recombinant molecule[,] <u>; and</u>
- [c) recovery of] <u>recovering</u> the exosomes produced by said cells, these exosomes containing said defined recombinant molecule.
- 22. (Amended) The method [Method] according to claim 21, [characterised in that it comprises an intermediate step b) during which the cells are stimulated] further comprising the step of stimulating said cells to induce [and/] or increase, or both, the secretion of exosomes.
- 23. (Amended) The method [Method] according to claim 21 [or 22, characterised in that the], in which said defined recombinant molecule is exposed outside the exosome, or is included, wholly or in part, in the cytosolic fraction of the exosome.



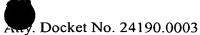
- 24. (Amended) The method [Method] according to [any of claims 21 to 23, characterised in that the claim 21, in which said recombinant molecule is a molecule of the major Histocompatibility complex, an antigenic molecule, a receptor ligand, a ligand receptor, a purification peptide, or any other polypeptide of interest.
- 25. (Amended) The method [Method] according to [any of claims 21 to 24, characterised in that the claim 21, in which said nucleic acid also comprises a region [coding for an addressing signal towards the membrane compartments of the mastocyte] encoding a membrane-specific signal sequence.
- 26. (Amended) A method [Method] for preparing an exosome containing a peptide-MHC complex of defined composition, [characterised in that it comprises] comprising the steps of:
- [culture of culturing an exosome-producing cell containing one or more recombinant nucleic acids coding for a defined recombinant molecule of the MHC[,];
 - [stimulation of the stimulating said cells to induce release of the exosomes[,];
- [recovery of the recovering said exosomes produced by said cells, these exosomes expressing on their surface said defined recombinant molecule of the MHC[,]; and
 - placing the exosomes in contact with the peptide or peptides. [-]
- 27. (Amended) A method [Method] for preparing an exosome containing a peptide-MHC complex of defined composition, [characterised in that it comprises] comprising the steps of:
- [culture of culturing an exosome-producing cell containing one or more recombinant nucleic acids coding for a defined recombinant molecule of the MHC and a nucleic acid containing a region coding for a defined recombinant peptide[,];
- stimulation of the stimulating said cells to induce release of the exosomes; [and
- [recovery of the recovering said exosomes produced by said cells, these exosomes expressing on their surface said defined recombinant molecule of the MHC associated with said recombinant peptide.



- 28. (Amended) The method [Method] according to claim 27, [characterised in that the] in which said nucleic acid coding for the recombinant peptide codes for a derivative of the li invariant chain, in which the CLIP region has been deleted and substituted by said peptide.
- 29. (Amended) The method [Method] according to [any of claims 26 to 28, characterised in that the] claim 26 or 27, in which said producer cell is a mastocyte or mastocyte-derived cell.
- 30. (Amended) The method [Method] according to [any of claims 26 to 29, characterised in that the] claim 26 or 27, in which said producer cell is essentially free of molecules of the endogenous MHC.
- 31. (Amended) A method [Method] for modifying the composition of an exosome, comprising the steps of:
- [- insertion] <u>inserting</u> into an exosome-producing cell [of] a nucleic acid coding for a defined molecule, [bound to an addressing signal in the] <u>and a signal sequence targeting cellular</u> membrane compartments[,]; and
 - [- production of] recovering exosomes from said cell.
- 32. (Amended) <u>A composition</u> [Composition] containing one or more membrane vesicles according to [any of claims] <u>claim</u> 1 [to] <u>, 12, or</u> 16.
- 33. (Amended) A method of using the [Use of a] vesicle [according to any of claims] of claim 1 [to], 12, or 16 for the production of polyclonal [and/or] antibodies or monoclonal antibodies or both.
- 34. (Amended) A method [Method] for producing antibodies, comprising [immunisation of] immunizing an animal with a vesicle according to claim [7] 1, and [recovery of] recovering the antibodies [and/] or cells producing antibodies or involved in the immunity response, or both.



- 35. (Amended) The method [Method] according to claim 34 [for the production of , in which said antibodies are monoclonal antibodies [, in particular specific for the MHCpeptide association].
- 36. (Amended) A method of using [Use of] an antibody obtained according to claim 34 [or 35], or of a fragment of said antibody, for the detection, in a biological sample, of the presence of corresponding specific antigens.
- 37. (Amended) A method of using [Use of] an antibody produced according to claim 34 [or 35, of], or a fragment of said antibody, or of a membrane vesicle [according to claim 1] that comprises a recombinant molecule of the human major Histocompatibility complex for the preparation of a therapeutic composition intended to inhibit the interaction between the receptor of a T-lymphocyte and the MHC-peptide complex for which it is specific.
- 38. (Amended) A method of using [Use of] a membrane vesicle according to [any of claims 1 to 16] claim 1, 12, or 16 for the detection of partners specific for a protein molecule in a biological sample.
- 39. (Amended) The method of claim 38, in which said membrane vesicle carries [Use according to claim 38 of an exosome carrying] a MHC-peptide complex for the detection of T-lymphocytes specific to this complex in a biological sample.
- 40. (Amended) The method of claim 38, in which said membrane vesicle carries [Use according to claim 38 of an exosome carrying] a TcR receptor for the detection of peptide-MHC complexes specific to this receptor in a biological sample.
- 41. (Amended) The method of claim 38, in which said membrane vesicle carries [Use according to claim 38 of an exosome carrying] a ligand receptor for the detection of the presence of said ligand in a biological sample.
- 42. (Amended) A method [Method] for the detection of the presence of Tlymphocytes specific to antigen-MHC complexes in a biological sample, comprising placing



said sample in contact with an exosome labelled according to claim [7] 51, containing said antigen-MHC complex, and evidencing the labelling of T-lymphocytes in said sample.

- (Amended) A method of using the [Use of a] vesicle according to claim 7 for 43. [the] clonal amplification [and/] or ex vivo stimulation of T-lymphocytes, or both, wherein said T-lymphocytes are cytotoxic [and/] or auxiliary T-lymphocytes, or both.
- 44. (Amended) A method of using [Use of] a vesicle according to [any of claims 11 to 16] claim 1, 12, or 16 for the preparation of a composition intended to [vehicle] deliver said molecule [towards] to a cell.
- 45. (Amended) A composition [Composition] containing one or more exosomes [immobilised] immobilized on a support.
- 46. (Amended) A method of using [Use of] a membrane vesicle according to [any of claim 1 to 16, in particular in immobilised form] claim 1, 12, or 16, wherein said membrane vesicle is immobilized on a support, for the purification of cells.
- 47. (New) The vesicle according to claim 5, in which said serotype is selected from the group consisting of DR1, DR2, DR3, DR4, DR5, DR6, and DR7.
- 48. (New) The method of claim 35, in which said monoclonal antibodies are specific for the MHC-peptide association.
- 49. (New) The cell of claim 19, in which said cell is derived from an RBL cell line.
 - 50. (New) The cell of claim 49, in which said RBL cell line is RBL-2H3.
 - 51. (New) The complex of claim 7, wherein said defined peptide is an antigen.